

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Rox 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO).	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOX:KET NO.	CONFIRMATION NO.
09/509,725		03/29/2000	Seok-Keun Koh	0630-2009PUS1	9859
2292	7590	02/15/2005		EXAM	INER
		RT KOLASCH &	MAYEKAR, KISHOR		
PO BOX 747 FALLS CHURCH, VA 22040-0747				ART UNIT	PAPER NUMBER
				1753	
				DATE MAILED: 02/15/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

		H					
	Application No.	Applicant(s)					
	09/509,725	KOH ET AL.					
Office Action Summary	Examiner	Art Unit					
	Kishor Mayekar	1753					
The MAILING DATE of this communication a Period for Reply	appears on the cover sheet with	the correspondence address					
A SHORTENED STATUTORY PERIOD FOR REI THE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a included the second of the specified above, the maximum statutory perion of the second of th	N. 1.136(a). In no event, however, may a repreply within the statutory minimum of thirty of will apply and will expire SIX (6) MONTI tute, cause the application to become ABAI	ly be timely filed 30) days will be considered timely. IS from the mailing date of this communication. NDONED (35 U.S.C. § 133).					
Status							
1) ☐ Responsive to communication(s) filed on 21 2a) ☐ This action is FINAL . 2b) ☐ T 3) ☐ Since this application is in condition for allow closed in accordance with the practice under	his action is non-final. wance except for formal matte						
Disposition of Claims							
4) Claim(s) 1-26 and 28-34 is/are pending in the 4a) Of the above claim(s) 2-19,22 and 30-32 5) Claim(s) is/are allowed. 6) Claim(s) 1, 20, 21, 23-26, 28, 29, 33 and 34 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and Application Papers 9) The specification is objected to by the Example 25 and 28-34 is/are pending in the 4a) of the the 4	is/are withdrawn from considents is/are rejected. d/or election requirement.	eration.					
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for forei a) All b) Some * c) None of: 1. Certified copies of the priority docume 2. Certified copies of the priority docume 3. Copies of the certified copies of the priority docume application from the International Bure * See the attached detailed Office action for a life	ents have been received. ents have been received in Appriority documents have been re eau (PCT Rule 17.2(a)).	olication No eceived in this National Stage					
Attachment(s)	. □						
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date 	•	Mail Date rmal Patent Application (PTO-152)					

DETAILED ACTION

Election/Restrictions

1. Claims 2-19, 22 and 30-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in previous papers of record.

Claim Rejections - 35 USC \$ 102 and \$ 103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Application/Control Number: 09/509,725

Art Unit: 1753

- Claims 1, 20, 21, 24, 33 and 34 are rejected under 35 U.S.C. 102(b) as being 4. clearly anticipated by CUMMIN et al. (3,252,830) in light of YOKOYAMA et al. (5.080.971). CUMMIN's invention is directed to a method for producing thin dielectric organic polymerics films which are employed in making a capacitor. CUMMINS discloses that the film is produced by all the steps as claimed (Fig. 2; col. 4, line 60 through col. 5, line 7; col. 3, lines 22-27; col. 3, lines 67-74; and col. 4, lines 9-10 and lines 27-30). As to the adhesion property, it is inherently possessed by the films when the substrate is the anode. As to the plasma formation, YOKOYAMA discloses that positive and negative ions and radicals are generated during the forming of plasma (col. 4, lines 18-44). As to hydrophilicity or hydrophobicity, it is inherent in the CUMMIN's organic polymeric films as it is obtained by the same process steps. The same is applied to claim 21 as it is obtained by the same process steps.
- 5. Claims 25, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over CUMMIN '830 in light of YOKOYAMA '971. CUMMIN in light of YOKOYAMA '971 as applied above discloses in col. 4, lines 27-38 that it is also possible to control the rate of polymerization, ie, by operating the glow discharge

Application/Control Number: 09/509,725

Art Unit: 1753

process with a partial pressure of the carrier gas along with the organic monomer, and the thickness. As such, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified CUMMIN's teachings because it has been settled that proper adjustment of a known effective variable of a known or obvious process is within the capabilities of one having ordinary skill in the art. In re Aller 105 USPQ 233; In re Boesch 205 USPQ 215.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over CUMMIN '830 in light of YOKOYAMA '971 as applied to claims 1, 20, 21, 24, 33 and 34 above, and further in view of YANAGIHARA et al. (4,693,799), a reference cited by Applicant. The difference between CUMMIN in light of YOKOYAMA '971 and the instant claim is the DC discharge is performed periodically in the form of on/off pulsing during a total processing time. YANAGIHARA shows in a process for producing plasma polymerized film using a pulse discharging where the discharging is direct current discharge and wherein the gas is unsaturated aliphatic hydrocarbon monomer with an inert gas (see abstract; col. 2, line 52 through col. 3, line 15; col. 3, line 67 through col. 4, line 1; col. 4, lines 46-52; and

Application/Control Number: 09/509,725 Page 5

Art Unit: 1753

col. 7, lines 15-24). The subject matter as a whole would have been obvious to one

having ordinary skill in the art at the time the invention was made to have modified

CUMMIN's teachings as suggested by YANAGIHARA because this would result in

improving properties of the organic polymeric films as compared to films obtained

from a continuous plasma polymerization process.

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over

CUMMIN '830 in light of YOKOYAMA '971 as applied to claims 1, 20, 21, 24, 33 and

34 above, and further in view of KLEEBERG et al. (5,089,290), another reference

cited in the last Office action. The difference between CUMMIN in light of

YOKOYAMA '971 as applied above and the instant claim is the step of annealing the

formed polymer. KLEEBERG shows the above limitation in a method of plasma

polymerization of a substrate (see abstract). The subject matter as a whole

would have been obvious to one having ordinary skilled in the art at the time the

invention was made to have modified the references' teachings as suggested by

KLEEBERG because this would result in stabilizing the formed polymer.

Response to Arguments

Application/Control Number: 09/509,725 Page 6

Art Unit: 1753

8. Applicant's arguments filed 21 December 2004 have been fully considered but they are not persuasive because of the new ground of rejections asset forth in the above paragraphs.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kishor Mayekar Primary Examiner Art Unit 1753